

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.-4. (canceled)

5. (currently amended): A rotating angle detector comprising:
magnetic field generator that uniformly generates a magnetic field in a direction
perpendicularly to a rotating axis, and
at least four magnetic sensors provided to generate one sine wave each for one rotation of
the magnetic field generator, and
a substrate provided with at least four differential amplifying means for amplifying
detection signals respectively originating from the at least four magnetic sensors,
wherein, current terminals of the at least four magnetic sensors are connected to each
other in a form of a series connection
wherein the substrate further includes:
at least two signal differential amplifiers that receive the outputs from the at least four
differential amplifiers.

6.-7. canceled

8. (previously presented): The rotating angle detector of claim 5, wherein at least one magnetic sensor is a Hall sensor.

9. (currently amended): The rotating angle detector of claim 5, wherein at least one magnetic sensor is a magneto-~~relutance~~ reluctance sensor.

10. (currently amended): A rotating angle apparatus comprising a plurality of rotating angle detectors, at least one of said rotating angle detectors including:

at least four magnetic sensors provided to generate one sine wave each for one rotation of a magnetic field generator that uniformly generates a magnetic field in a direction perpendicularly to a rotating axis, wherein, current terminals of the at least four magnetic sensors are connected to each other in a form of a series connection, and

a substrate provided with at least four differential amplifying means for amplifying detection signals respectively originating from the at least four magnetic sensors,

wherein the substrate further includes:

at least two signal differential amplifiers that receive the outputs from the at least four differential amplifiers.

11. (new): The rotating angle detector of claim 9, further comprising:

a substrate provided with at least four differential amplifying means for amplifying detection signals respectively originating from the at least four magnetic sensors.

12. (new): The rotating angle detector of claim 9, wherein the substrate further includes:
at least two signal differential amplifiers that receive the outputs from the at least four
differential amplifiers.